DOCUMENT RESUME

ED 384 130 EA 026 827

TITLE	Recommendations for Emergency Management Planning for School Facilities.
INSTITUTION	Texas Education Agency, Austin.
PUB DATE	94
NOTE	131p.
AVAILABLE FROM	Texas Education Agency, Publications Distribution, 1701 North Congress, Austin, TX 78701 ($6).
PUB TYPE	Guides - Non-Classroom Use (055)
EDRS PRICE	MF01/PC06 Plus Postage.
DESCRIPTORS	*Educational Facilities Planning; Elementary Secondary Education; *Emergency Programs; Fire Protection; Natural Disasters; Safety Education; School Accidents; *School Safety; Statewide Planning; *Strategic Planning
IDENTIFIERS	*Texas

ABSTRACT

Numerous events, such as hurricanes, floods, and tornadoes, constitute a natural disaster for public schools. Human-caused disasters include hazardous-material emergencies, civil riots, fires, and nuclear accidents. This document contains emergency-management planning guidelines, developed by the Texas Education Agency, to help local school districts develop effective systems of disaster planning. An effective emergency plan addresses first-aid preparedness; parent-notification procedures; specific disaster procedures; personnel regulations; crisis-intervention procedures; and provisions for the use of school facilities, equipment, and personnel during disasters. Chapter 1 outlines the roles and responsibilities of various school personnel and community members in emergency-management planning. Chapter 2 describes the steps involved in preparing the plan. Guidelines for specific hazards are provided in the third chapter, including injury and illness, various natural disasters, utility failure, bomb threats, and nuclear incidents. Suggestions for developing an emergency-preparedness education program are offered in the fourth chapter. Chapter 5 outlines crisis-intervention strategies for handling children's and personnel's emotional responses to disaster. A list of state resources is included. (LMI)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 384 130

Recommendations for Emergency Management Planning

for School Facilities

PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

L. Kemp

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

Texas Education Agency

1994

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

EA 026 827

BEST COPY AVAILABLE

Recommendations for Emergency Management Planning

for School Facilities

This publication is not copyrighted; any or all sections may be duplicated. After an initial free distribution to authorized institutions, additional copies may be purchased for $6.00 from the Publications Distribution Office.

Texas Education Agency
1701 North Congress
Austin, Texas 78701

State Board of Education

(State Board for Vocational Education)

CAROLYN HONEA CRAWFORD
Beaumont
Chairman of the State Board of Education
District 7

WILL D. DAVIS
Austin
Vice Chairman of the State Board of Education
District 10

MARY HELEN BERLANGA
Corpus Christi
Secretary of the State Board of Education
District 2

Board Members

ALMA A. ALLEN
Houston
District 4

JACK CHRISTIE
Houston
District 6

ELEANOR N. CONRAD
Dallas
District 13

MONTE HASIE
Lubbock
District 15

WILLIAM L. HUDSON
Wichita Falls
District 14

PATSY JOHNSON
Sulphur Springs
District 9

GERALDINE MILLER
Dallas
District 12

RENE NUÑEZ
El Paso
District 1

ROBERT H. OFFUTT
San Antonio
District 5

DIANE PATRICK
Arlington
District 11

MARY KNOTTS PERKINS
Lufkin
District 8

ESTEBAN SOSA
San Antonio
District 3

LIONEL R. MENO
Commissioner of Education
(Executive Officer of the State Board of Education)

Committees of the State Board of Education

PERSONNEL
RENE NUÑEZ, Chairman
ALMA A. ALLEN
JACK CHRISTIE
ELEANOR N. CONRAD
DIANE PATRICK

STUDENTS
GERALDINE MILLER, Chairman
MARY HELEN BERLANGA
PATSY JOHNSON
ROBERT H. OFFUTT
MARY KNOTTS PERKINS

SCHOOL FINANCE
WILL D. DAVIS, Co-chairman
WILLIAM L. HUDSON, Co-chairman
CAROLYN HONEA CRAWFORD
MONTE HASIE
ESTEBAN SOSA

LONG-RANGE PLANNING
MARY KNOTTS PERKINS, Chairman
ALMA A. ALLEN
JACK CHRISTIE
ELEANOR N. CONRAD
CAROLYN HONEA CRAWFORD
WILL D. DAVIS
PATSY JOHNSON
DIANE PATRICK

PERMANENT SCHOOL FUND
ESTEBAN SOSA, Chairman
MARY HELEN BERLANGA
MONTE HASIE
WILLIAM L. HUDSON
GERALDINE MILLER
RENE NUÑEZ
ROBERT H. OFFUTT

Contents

Acknowledgments

Introduction

I. **Emergency Management Planning Roles and Responsibilities**
- The State Board of Education
- The Local School District
- The Superintendent
- The Principal
- The Teaching Staff
- The Nursing Staff
- The Physical Plant Staff
- Transportation Personnel
- Food Service Personnel
- Administrative Staff
- Media Center Staff
- Parents
- Students
- The Community
- Additional Assistance

II. **Preparation of the Emergency Management Plan**
- Plan Criteria and Format
- Planning Elements
  - Maps and Floor Plans
  - Charts
  - Climatic Data
  - Local History
  - Surveys and Inventories
  - Community Resources
  - Call-Up Lists
  - Warning and Communications
  - Notification of Parents
  - Transportation
  - Staff Training and Education
  - Hazard Assessment
- The Community Catastrophe and the School as Emergency Shelter

III. **Planning Guidelines for Specific Hazards**
- Injury and Illness
- Fire
- Thunderstorms
- Tornado
- Flooding
- Hurricane
- Winter Storms
- Hazardous Material
- Earthquake
- Utility Failure
- Bomb Threats
- Nuclear Power Plants
- Nuclear Conflict

IV. **Emergency Preparedness Education**
- Primary Grades
- Intermediate and Secondary Grades
- Disaster Awareness Week

V. **Crisis Intervention**
- Children and Their Responses to Disaster
- After the Disaster
  - Defusing
  - Debriefing
  - The Talking Method
  - The Drawing Method
- How to Recognize a Child with an Emotional Problem
- Stress Interventions with Adolescents
- Taking Care of Yourself

VI. **Resources**
- The Governor's Division of Emergency Management (DEM)
- Texas Education Agency
- Texas Department of Mental Health and Mental Retardation
- Texas Crime Victim Clearinghouse, Office of the Governor
- Business, Industry Associations and Volunteer Organizations

Acknowledgments

This document represents the collective efforts of a vast network of emergency management professionals spanning the breadth of the North American continent, from Maryland to California. I am grateful to many individuals and organizations for their assistance with the development of this document.

Muchisimas gracias to Mr. Tom Milwee and Mr. Juan Perales at the Texas Department of Public Safety/Department of Emergency Management for their encouragement and technical assistance in the overall development of this document. I should also like to mention the fine contributions made by Ms. Holly Williams of the Texas Education Agency, Ms. Karen Kalergis of the Texas Crime Victim Clearinghouse, Office of the Governor, and Ms. Nancy Fernandez of the Alameda County Health Agency, Oakland, California, on the topic of Crisis Intervention. Finally, I am indebted to Ms. Sarah Nathe of the California Office of Emergency Services for her innumerable contributions, information sources, and editorial advice.

It is our hope that these recommendations will assist school administrators in their efforts to prepare for that which cannot be anticipated, and to effectively manage that which is uncontrollable.

Introduction

Emergency Management Planning for School Facilities

A disaster is, by definition, a "sudden and extraordinary misfortune, bringing with it destruction of life or property." Disasters are difficult to anticipate or to cope with when they happen.

There are numerous events that constitute a disaster for a public school. There are natural disasters such as hurricanes, floods, tornadoes, and lightning; and there are human caused disasters such as hazardous material emergencies, civil riots, fires, and nuclear accidents.

An effective emergency management plan should address:

- first aid preparedness
- notification procedures to parents
- specific disaster procedures
- personnel regulations
- crisis intervention procedures
- provisions for use of school facilities, equipment, and personnel during disasters.

The Texas Education Agency has developed the Emergency Management Planning Guidelines to assist local school districts in their efforts to develop an effective system of disaster planning. The local school districts have the primary responsibility for developing procedures for mitigative action, direction and control of emergency operations, recovery, and rehabilitative actions associated with disasters.

The Texas Education Agency will provide information to local school districts for developing unilateral emergency management plans as well as cooperative plans with other governmental entities in their area and county.

For additional information regarding the specific requirements of an emergency management plan, please contact:

Division of State Funding
Texas Education Agency
1701 North Congress Avenue
Austin, Texas 78701-1494
512/463-9238

Federal Emergency Management Agency

DEM
DIVISION of EMERGENCY MANAGEMENT

American Red Cross

I.
Emergency Management Planning
—Roles and Responsibilities

The State Board of Education

The responsibilities of the Texas Education Agency are as follows:

- To provide information to school districts regarding their responsibilities to students, faculty and the community in emergency preparedness and response to emergencies.
- To provide information to school districts to assist them in developing unilateral emergency plans.
- To develop procedures within the Texas Education Agency for coordination of the development of school district emergency management plans.
- To develop procedures of operation in the event of emergencies resulting from disasters.
- To develop procedures for the timely collection and dissemination of vital information in the event of a disaster.
- To develop procedures to assist school districts in recovering from disasters.
- To coordinate with state emergency management officials and other agencies involved in the state emergency operations plan.

The Local School District has the authority to perform the following duties:

- Develop a management plan for emergencies.
- Obtain legal advice concerning the status of school personnel and property in time of emergency and during drills and exercises.
- Execute agreements with local governments regarding the use of district equipment and personnel during a disaster.
- Coordinate with other agencies in developing general standards for local school system emergency plans.
- Establish a school emergency plan review committee to approve and coordinate all school disaster plans. The review committee should include:
  - the local emergency management agency coordinator;
  - a school system emergency coordinator;
  - individual school representatives;
  - parents, students, teachers, and association representatives.
- Require that all children participate in emergency preparedness training.
- Review school construction and renovation projects for safety.

The Superintendent should:

- Recommend emergency preparedness programs to the local school board.
- Appoint a System Emergency Coordinator to assist in planning.
- Consult with the local Emergency Management Office to analyze system needs in regard to disaster preparedness, planning and education, and to ensure coordination of the school plan with community disaster plans.
- Develop and coordinate in-service emergency response education for all school personnel.
- Implement emergency preparedness curriculum.
- Implement change in disaster plans based on evaluations.
- Obtain a resolution from the local school board giving needed authority and support to develop school emergency preparedness programs and disaster plans.
- Initiate, administer and evaluate emergency preparedness programs to ensure the coordinated response of all schools within the system.
- Be informed of neighboring school system emergency management policies and make mutual aid agreements.
- Identify which school facilities are suitable for use as mass care facilities, and coordinate any related activities with the American Red Cross.

The Principal should:

- Act as the school emergency coordinator.
- Assign selected faculty members responsibility for developing the school disaster plan.
- Ensure that the plan is coordinated with both the community's disaster program and in harmony with the school district's plans and policies.
- Assign school emergency responsibilities to staff as required.
- Secure necessary in-service training for faculty and staff.
- Encourage incorporation of emergency preparedness material into regular curriculum.
- Conduct drills and initiate needed plan revisions based on drill evaluations.
- Arrange for procurement, storage and maintenance of emergency supplies and equipment.
- Arrange for the installation of an emergency warning system.
- Keep parents informed of the emergency warning system.
- Supervise periodic safety checks of school facilities and transport vehicles.
- Provide copies of the school plan to the district Superintendent and the local Emergency Management Office.

- Determine the adequacy of shelter space for students and staff.
- Keep the district Superintendent informed of specific needs in regard to shelter, supplies and instructional materials.
- Recommend school construction and facility renovation in view of safety/ shelter features.
- Be informed of the school's shelter status.

The Teaching Staff should:

- Participate in developing the school disaster plan.
- Participate in emergency preparedness in-service training programs.
- Be familiar with minimum first aid procedures.
- Provide instruction and practice in emergency preparedness and survival techniques.
- Help students develop confidence in their abilities to care for themselves and be of help to others.
- Be prepared to provide leadership and activities for students during a period of enforced emergency confinement.
- Be familiar with the psychological basis for working with children under the stress of an emergency situation (see Chapter V, Crisis Intervention).

The Nursing Staff should:

- Participate in the development and implementation of the school disaster plan.
- Render first aid, treat casualties, identify and tag young children, unconscious persons, and others as necessary, and prepare patients for transportation to hospitals.
- Supervise and train first aid teams and stretcher bearers.
- Participate as health resource persons in faculty studies leading to emergency preparedness curriculum development.
- Advise students and teachers of emergency health and sanitation measures.
- Assist the Principal in determining the need for emergency supplies and equipment.
- Coordinate school health service plans with those of the community.
- Advise disaster planners of the need to provide for physically and mentally handicapped persons during emergencies.

The Physical Plant Staff should:

- Inspect facilities for structural safety, and report defects.
- Identify shutoff valves and switches for gas, oil, water and electricity and post charts so that other personnel may use them in an emergency.
- Provide a cutoff for steam lines in shelter areas.
- Provide for emergency operation of ventilating systems.
- Post locations of all protective equipment.
- Instruct all school staff in the use of fire extinguishers.
- Maintain an inventory of tools and equipment.
- Advise the school disaster planning committee of hazardous and protective areas of school facilities, available emergency equipment, and alternate power sources.

Transportation Personnel should:

- Instruct children in emergency bus evacuation procedures, and be prepared to render emergency first aid.
- Inform administration of changing route conditions, road construction projects, etc., which may be potentially hazardous or alter emergency transportation plans.
- Know alternate routes by which students could reach home, shelter or evacuation assembly points.
- Keep emergency equipment and telephone numbers in the bus.
- Be aware of emergency shelter facilities along routes and within the local area.
- Keep vehicles serviced and ready to transport evacuees when an emergency situation is anticipated or has occurred.

Food Service Personnel should:

- Maintain adequate supplies of food and water for emergency use.
- Rotate supplies to ensure freshness.
- Train in mass feeding practices under emergency conditions.
- Practice kitchen health/safety laws, rules and regulations at all times.

Administrative Staff should:

- Assist in the development of disaster plans.
- Develop competency through participation in school drills, in-service training, and exercises.

Media Center Staff should:

- Make available for use printed and non-printed emergency preparedness instructional materials and resources according to district policy (see Resources section).
- Research, evaluate and make recommendations for the acquisition of teaching aids and literature relative to the goals of the school emergency preparedness program.

Parents should:

- Encourage and support emergency preparedness programs within the schools.
- Volunteer services for school emergency planning and during actual emergencies.
- Provide the school with requested information concerning the student for emergency situations, early and late dismissal, etc.
- Encourage the child to discuss emergency preparedness and response techniques learned at school.
- Practice emergency preparedness in the home to reinforce school training and ensure family safety.

Students should:

- cooperate during emergency drills and exercises.
- learn to be responsible for themselves and others.
- develop an awareness of natural and technological hazards.
- take an active part in school emergency response and be assigned a variety of tasks (taking into consideration age and maturity).

The Community is a valuable resource for:

- warning,
- assistance,
- consultation,
- information,
- coordination,
- educational materials.

Additional assistance may come from:

- Emergency Management officials
- churches
- clubs and organizations
- emergency medical services
- local law enforcement and fire department organizations
- hospitals
- the American Red Cross.

II.
Preparation of the Emergency Management Plan

School districts have a **moral obligation** to develop a disaster plan. The plan

- should define the district's legal responsibilities,
- establish its implementation, and
- identify the circumstances during which emergency procedures must be taken.

An effective disaster plan is comprised of several components. The following topics are provided as suggestions. Since the plan is a living document, meant to be revised as a result of drills, exercises, and real life experiences, it should be flexible to allow for modifications as unexpected situations develop. Strive for simplicity and clarity.

Plan Criteria and Format

Common criteria which should be considered are:

- A brief description of the school's position on emergency preparedness.
- A full description of how the school is to receive the message of an actual or impending disaster/emergency.
- A list of emergency telephone numbers, including an administrative chain-of-command, and emergency services.
- An identification of shelter areas or best protective areas.
- A list of criteria to consider when deciding whether or not to evacuate.
- An identification of evacuation assembly areas outside of buildings.
- A description of the organization and action required for the evacuation and movement to shelters.
- A listing of responsibilities and assignment of personnel for each anticipated emergency situation.
- A step-by-step description of warning, preparation and response for specific anticipated emergency situations.
- A description of education, training and drills required of school population.
- Provisions for periodic review and revision.
- A formal approval by the local school board.
- Identification of person(s) responsible for dissemination of information to the news media, and an outline describing procedures for dissemination.
- Provisions for the use of school facilities, equipment, and personnel to respond to community disasters pursuant to agreements with local governments.

Helpful Hints:

- Provide spaces for phone numbers of key responding personnel and alternates. List first by job title, then by name.
- Step-by-step procedures should be as simple as possible, and clear to someone unfamiliar with the plan.
- Whenever possible, save time and confusion by assigning a standard procedure to a particular response. For example, the fire evacuation policy may be applicable to many situations requiring the evacuation of a facility.

Planning Elements

Organization

The local school board should appoint a review committee to function as the agent of the Superintendent's office. The Superintendent may wish to appoint an Emergency Coordinator (EC) and assign this person the responsibility for assisting the schools in developing disaster plans and working directly with the review committee. Part of the EC's duties should be

- to secure the assistance of the local Emergency Management Director and other appropriate local agencies, and
- to develop an information base that will ensure coordination between school and community disaster response plans.
- to ensure that everyone affected by the plan has the opportunity to participate in its development.

At the individual school level, each principal should select dedicated, interested staff members to participate in the development or revision of the school disaster plan. It is suggested that the Principal act as chairperson and EC of the disaster response planning committee.

Process

The **process** of planning is more important than the plan itself. The more people that are involved in planning, the more people will know how to respond. If people "own" parts of the plan, they are motivated to participate.

Floor Plans

It is difficult to develop a school emergency plan without a **floor plan** and an organizational chart. Floor plans offer disaster planners a summary of building features so that shelter areas can be determined and evacuation routes can be planned. Avoid hazardous areas (boiler rooms, etc.) and take advantage of safety construction (fire rated construction at exit corridors, etc.). Blueprints of all structures will assist inspectors in determining the strutural integrity of a building after a disaster. **Topographic maps** show the school in its community context.

In an emergency, floor plans can be used to locate a trouble spot and to determine how and when it may affect the students and facilities.

Organizational charts outline responsibilities (indicating job titles, names, addresses and phone numbers of key personnel) and are useful lists of resources available for action.

Information on charts and maps should be kept as **simple** as possible. Visual effectiveness can be increased by color coding and the use of large uncomplicated symbols.

Climatic Data and Local History

Climatic data can be supplied by local weather stations. Planners should know the general weather and climatic patterns of their area. The entire state of Texas is subject to severe weather, but vulnerability to each weather type varies widely across the state.

Planners should know the history of disasters which have affected the local community. Local historical clubs, emergency service agencies, libraries and newspaper files are all good sources of information. Do not overlook the elderly in the community who can provide oral histories of past events.

District Inventories and Community Resources

Planners will find inventories of district owned supplies and equipment helpful in determining what is available for emergency use. Planners will also want to conduct a survey of school facilities to locate and inventory protective areas, and check the quality of stored supplies. This survey should include a safety check to determine possible hazards on school grounds and within buildings.

Community resources take many forms. Planners should not overlook fire officials, Emergency Management officials, and law enforcement officers. They are available to provide assistance in emergency preparation and response. They are often willing to speak to students, and conduct training workshops. In addition, it is important for emergency planners to include school districts in city and county emergency plans.

Call-Up Lists

A current call list of all names, addresses and phone numbers for staff, emergency service agencies, and news media should be maintained. A pocket card with phone numbers of primary personnel, alternates and basic emergency response agencies should be given to staff members for quick reference, and the school district should develop call down procedures.

Warning and Communications

It is imperative that school personnel know the exact means by which warning is to be transmitted, received and disseminated. The school EC should consult the local Emergency Management director and other appropriate emergency service agencies to determine the method by which emergency warning is provided.

Each school should test the effectiveness of existing equipment and consider obtaining emergency communications equipment. For example, if the only means of communication is a telephone, you should be aware that demand for lines is great during an emergency.

Each school should have an alternate warning system in the event of a power failure which will alert the entire complex (all buildings and play areas). Also, each school should be equipped with a battery operated radio to receive information from the Emergency Broadcast System.

Notification of Parents

Every school should have a method by which the public can be notified of school emergency situations. Arrangements with local radio and television stations to broadcast emergency bulletins should be established.

At the beginning of each school year, parents should complete a **questionnaire** to advise the school administration whether students are to be sent to their homes, to neighbors, or maintained in the custody of the school in the event of a disaster. The questionnaire should include parents' home and business phone numbers and the name and phone number of each student's doctor.

Every parent should be provided a copy of the school's emergency policy (including a list of radio/T.V.stations to monitor should school action be anticipated), and a statement that under extraordinary circumstances when parents cannot be notified, the administration will act as its own discretion.

After the notification of parents, the school district should be prepared for additional news media inquiries.

Transportation

Since emergency procedures may require transportation at irregular hours, a list should be kept of the following:

- The number and capacity of school district vehicles available.
- The number and capacity of private vehicles which could be made available if there is a shortage of school district vehicles.
- All drivers and alternates, with a means of contact, who could be expected to respond to an emergency call.
- The total number of students and staff that travel each normal route.

Other essential elements that must be considered are:

- Predetermination of alternate routes.
- The location and capacity of emergency shelters along routes, alternates, or within the vicinity.
- Alternate procedures to optimize the time buses could cover normal routes.
- The provision of emergency transportation to students who would normally walk.
- The time required to complete transportation operations under normal conditions.

Staff Training and Education

Training and education is an ongoing process that is essential to an effective response time under emergency conditions. Pre-emergency training for each person with an emergency duty should be required and supplied by the school. Instruction should be given as part of a continuous training program. It should

develop the awareness of hazards, and provide measures for protection of life and property. Training should also address the meanings of warnings and public information announcements. Exercises, drills and tests are vital components of such training and should be utilized once the staff has been educated. Basic training will serve the individual and the school population and may readily be accomplished through brief workshops and in-service training periods.

Hazard Assessment

The assessment of hazards is also an ongoing process. The most effective plans are preceded by a careful hazard assessment of the school facilities. They should address the context of the neighboring area, and also relate to the county, climatic region or metropolitan area.

Using maps, floor plans, local history and climatic data, planners should determine planning priorities. The most comprehensive portions of the plan will be devoted to those emergencies most likely to occur.

Basic topics to be addressed in the hazard assessment are:

- **Building and Site Evaluation.** Examine the campus with any previous use of the property in mind. Identify old foundations, wells or pits which may not be adequately sealed or filled. Look carefully for slopes or embankments that could cave in or slide.
- **Identify potential hazards** of the neighboring area. Locate pipelines, rail lines and highways used for transportation of hazardous materials. Note storage areas and industries using hazardous materials. Determine a sociological profile of the neighborhood to determine vulnerability to civil disturbances or vandalism.
- **Evaluate the facility** in relation to its greater surroundings, including geography and climatic conditions. Consider natural phenomena such as tornadoes, hurricanes, flash flooding, etc. Consider the areas served by the school and locate bus routes and alternates on maps.

Community Catastrophe and Schools as an Emergency Resource

Accidents, fires, explosions or industrial chemical spills occurring off campus may threaten students, staff or school buildings. They may also disrupt transportation routes, communications systems, or destroy residential areas served by the school. Many of the school evacuation, transportation, or dismissal policies may be appropriate in response to such a disaster.

Local government emergency service authorities will generally provide guidance to school authorities. Only in extreme circumstances where the school becomes isolated by a total transportation and communications breakdown will the

principal be solely responsible for emergency action. In these circumstances, the principal must exercise his/her best judgment until communications can be restored.

During an emergency, temporary shelter may be needed by victims left homeless. Some school facilities may be adaptable to accommodating groups of people in these circumstances. Typically, school cafeterias are capable of feeding large groups of people. School district vehicles are also capable of transporting people and emergency supplies.

An agreement to permit the use of school resources, grounds and structures during such emergencies should be coordinated **before a disaster** between the superintendent and local government authorities. School staff members should be notified of such agreements and their subsequent responsibilities.

Each school should maintain an inventory of available space, and an assessment of the capacity of the facilities to accommodate disaster victims.

NOTE: If a school facility is to be utilized as shelter during a hurricane, tornado, or earthquake, its architectural and structural components should be evaluated by qualified personnel to determine suitability for operation under such conditions.

This inventory should be provided to local governing officials for use during an emergency situation.

Designation of emergency shelter facilities should be made by school officials in coordination with local Emergency Management officials and the **American Red Cross (ARC)**. The ARC has a congressional mandate to provide shelter after a disaster on American soil; therefore, school districts should develop lines of communication with their local ARC chapters, and determine the division of any responsibilities that may be incurred in the event of a disaster.

III.
Planning Guidelines for Specific Hazards

42

Injury and Illness

Injury and illness are the most common of all school emergencies. Every school should be prepared to provide basic first aid, while summoning necessary emergency assistance.

Typical **preparation measures** to be considered are as follows:

- Establish a current list of Emergency Medical Service (EMS) telephone numbers.
- Establish a current list of staff and students qualified to administer first aid and the locations where they are likely to found during the school day.
- Establish a list of students with known medical problems, and parental instructions for emergency actions.
- Establish a general file of students' home telephone numbers; parents' business telephone numbers; names and numbers of other individuals authorized by the parents to make decisions regarding emergency treatment; family physician; and choice of clinic or hospital.
- Establish a general file of emergency telephone numbers for all school personnel.
- Request that the local school board legal counsel provide a statement of legal responsibilities and liabilities, including insurance restrictions. This information should be provided to the school principal at the beginning of each school year.
- Notify parents of school policy and actions which will be taken when parents cannot be reached.
- Encourage faculty and students to take first aid training.
- Develop a school policy to cover health epidemics.

Typical **response measures** to be considered are:

Non-Critical Injuries

- Administer first aid.
- Notify parents and request that they provide transportation for the student (to home or doctor's office).
- If parents cannot be contacted or if transportation cannot be provided, take action in accordance with a predetermined school policy.

Critical Injuries

- Administer first aid.
- Take action in accordance with the parents' wishes by:
  - Contacting the student's doctor.
  - Transporting the student to the doctor's office (or hospital) by staff or school vehicle.
- If a parent cannot be contacted immediately, take action in accordance with the predetermined school policy. Continue attempts to contact the parent and keep a record of procedure, times, etc.
- Notify the Superintendent's office.
- Promptly fill out appropriate injury, illness or insurance report forms.

43

Fire

Fire is an ever-present danger. A small fire can quickly get out of control, and jeopardize the safety of a school facility. Schools should have a fire emergency procedure to respond to both internal and external threats.

Warning

- Every school facility should have a fire alarm system. The alarm signal sound should be distinct from any other warning signals used within the school.
- In case of a malfunction, an alternate signal should be available (cowbell, whistle, bullhorn, etc.).

Preparation

Equipment:

- All personnel and students should be familiar with the location and operation of alarms and fire extinguishers.
- All equipment (including extinguishers, sprinkler systems, fire doors, etc.) should be maintained in accordance with state and local regulations.

Evacuation Plans:

- Plans should be designed to evacuate the campus quickly and safely.
- Identify and designate the best exits, evacuation routes and alternatives on a master floor plan.
- Should identify and designate assembly points at least 500 feet from the buildings.
- Should include instructions for evacuating crowds attending school functions or community social functions.

Whenever possible, younger or handicapped children should be assigned to rooms on ground floors and adjacent to exits, or to rooms which open directly to the outside. Plans should also include a list of each person's role in evacuating the building, designating who should check restrooms, vacant classrooms, locker rooms, storage areas and space which may be occupied.

Be sure to include provisions for resumption of classes in other district facilities until damages are repaired.

Evacuation routes should:

- Take advantage of natural protective features (fire walls, etc.).
- Avoid hazardous areas such as wooden stairs, open stairwells, boiler rooms, etc.
- Restrict the possibility of cross traffic.

Evacuation Instructions should:

- Be given to all students on the first day of school.
- Be given to all personnel at time of hiring.
- Be posted by fire exit diagrams.
- Be provided to all substitute teachers in a desk copy of emergency instructions.
- Designate student and staff responsibilities for:
  - Closing windows and doors when leaving rooms.
  - Checking adjacent restrooms, vacant rooms, storage areas, etc.
  - Leading lines of march.
  - Assisting handicapped students.
  - Guarding exits to prevent unauthorized entry.

General Procedures

- Each school should devise a method to safeguard records.
- Provisions should be made for disconnecting utilities.
- Plans should include provisions for careful and frequent safety checks of grounds, transport vehicles, and emergency equipment.

Response

- When fire is detected, an alarm should be sounded and fire authorities notified without delay.
- Evacuate buildings immediately, using predesignated routes and exits.
- Evacuation should be conducted:
  - In orderly lines with no running.
  - Quietly with no talking to minimize confusion and allow for changes of orders to be heard.
- Pre-established standard evacuation procedures should be followed:
  - Students should leave the room in **single file**, one row at a time.
  - **Close windows**, time permitting.
  - A predesignated person should **check restrooms and vacant rooms adjacent to classrooms.**
  - Do not take personal belongings (teacher takes roll book only).
  - Upon completion of exiting, the teacher should **close the door** to prevent fire drafts.
  - Once at the assembly point outside, the teacher should **take roll** and report to the principal. Account for all present or missing persons.
  - Guards should assume posts at exits.

Testing and Evaluation of the Fire Response Plan

Drills

- Should be carried out frequently (in accordance with the requirements of the Texas Commission on Fire Proctection).
- Should announce the first drill of the year in advance so that instructions can be given and procedures established. Procedure, not time, should be most important for the first drill. Additional drills should be conducted with time as the important element.
- Should be carried out under a variety of conditions:
  - during lunch hours, recesses, assemblies, sports events, regular class periods, class changes, and under varying weather conditions.
  - with best routes and/or exits blocked to test alternate routes.
- Should be a surprise!

Evaluation

- Should be made by school personnel and students.
- Should be made by observers such as local fire, police and Emergency Management officials.
- Should be made using a pre-established questionnaire to cover basic points and to elicit additional comments and recommendations for changes in procedure.

Make copies of the evaluation available to the school Emergency Coordinator (EC) and planning committee.

Thunderstorms

Thunderstorms are a frequent phenomena all over the state. They are often accompanied by lightning, damaging winds in excess of 50 MPH and hail. Quite often a thunderstorm is a prelude to a tornado.

Warning

If available, the school should be on a warning system coordinated with the local Emergency Management officials and the police department. Radio, or T.V. A weather receiver should be monitored for public warning when weather conditions indicate. The National Weather Service issues the following alerts:

Severe Thunderstorm: Weather conditions are such that a thunderstorm may develop.

Severe Thunderstorm Watch: There is a possibility of a storm developing which would be greater in intensity than a severe thunderstorm.

Severe Thunderstorm Warning: A severe thunderstorm has developed and will probably affect those areas stated in the bulletin.

Preparation

- Develop a policy for students who walk home, or provide their own transportation. Address the following:
  - Early dismissal (before the anticipated storm becomes severe).
  - Provisions for emergency transportation.
- Students should be kept at school under supervision in a protected area (but not under trees!) until the storm passes, walking is safe, or transportation is provided.
- Develop a policy for school cancellation, delayed school opening or late dismissal when road conditions are unsafe or severe storms threaten.

Response

- During a severe thunderstorm warning, **relocate all students from portable classrooms** to the main school building.
- During a watch or warning, cancel outdoor recess and physical education classes. Even when there is no wind or rain, lightning is always a threat.
- During periods of particularly high wind, keep students away from glazed areas.
- During an active thunderstorm, do not use telephones, electrical appliances, or come into prolonged contact with plumbing.

Tornado

Tornadoes are the most violent of all atmospheric phenomena. Schools must be prepared to take emergency action when threatened.

Warning

- The National Weather Service issues two types of tornado alerts:
  - **Tornado Watch:** Weather conditions are such that a tornado may develop.
  - **Tornado Warning:** A tornado has been sighted and protective measures should be taken.
- The notification of a weather watch or warning may be received by a tone encoded message from the nearest National Weather Service office through a weather warning receiver, or by monitoring local radio/T.V. during threatening weather by prearrangement with police, fire or Emergency Management officials.
- Every school should be equipped with a distinct tornado alarm system. It is important that this alarm not be confused with the fire alarm or any other evacuation signal. During a tornado, students and patrons will seek shelter within the building or in a designated tornado shelter.
- Every facility should also install a manually operated backup warning system.

52

Preparation

- All staff, faculty, administrators and students should know the characteristics of severe thunderstorms and tornadoes.
- Selected staff members and responsible students should be trained tornado spotters, and also be trained in the use of the school's warning and communication system.
- Establish procedures governing the use of school buses during tornado watches and warnings. Generally, school buses should not operate during tornado warnings. **School buses are rolled easily by tornado winds.**
- Transportation personnel should be instructed in tornado procedures. If a driver sees a tornado approaching he/she should:
  - Drive away from the tornado's path at **right angles** if possible.
  - Evacuate the bus and **take shelter** in a predesignated building or other substantial building along the route.
  - Evacuate the bus and escort students to a ditch or hollow and have them lie face down, hands over head. Keep students far enough from the bus so it cannot be turned over on them.
- Instruct the staff in procedures to take for building security during watches and warnings.

53

During the watch

- Prop open vents and doors between classrooms and hallways.
- Open all windows slightly.
- Store portable equipment, outdoor furniture, etc., inside the building away from shelter areas.

During the warning

- Open and secure exterior glass doors; otherwise, they may shatter and add to flying debris within the building. Leave solid exterior doors closed.
- Secure or store articles which may act as missiles indoors.

54

With the assistance of authorities, determine and designate the best tornado shelter areas in each building.

In multi storied buildings

- Use identified **fallout shelters.**
- Use **basements.**
- Use first floor **interior corridors.**
- Use **restrooms** or other enclosed small areas away from large, glazed areas or large open rooms.

In one story buildings:

- Same as multi storied buildings (see above)
- If hallways are not suitable, use the inside wall of a room on the opposite side of the corridor from which the storm is approaching. End rooms should not be used.
- In either one story or multistory buildings, restrooms are usually suitable for small groups, especially if the room is centrally located.

Auditoriums, gymnasiums, cafeterias or other large rooms are least suitable as shelters. Long-span roof structures may fail under these conditions.

Rooms having large glazed areas should not be used for shelters.

55

Use a floor plan to diagram the building and determine which areas to use as shelters and the quickest way to get there.

- Check space available and number of persons which will use the area.
- Post the tornado shelter plan in the principal's office.
- Post in each room the location of the tornado shelter to be used by the occupants, and the route to get there.
- Provide a copy of this information to the local Emergency Management office or fire department.

Response

When notified of a Tornado Watch by the warning receiver, or when weather conditions indicate the possibility of a tornado, the local T.V./radio station should be tuned in and monitored for updated weather information:

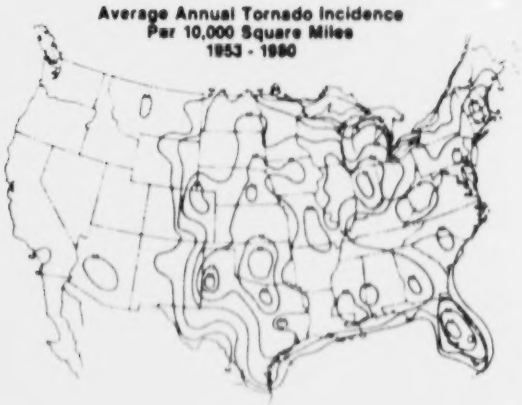
- Continue normal activities.
- Send predesignated **"tornado spotters"** to a central warning point. **The spotter should have a clear view of the south and west** (the prevailing direction of a tornado) or the direction of approach of threatening weather.
- Initiate Tornado Watch building security measures.
- Move students from all temporary (mobile) classrooms.

When a Tornado Warning is received, **take emergency procedures at once.** If there is sufficient time to take shelter:

- Evacuate the room quickly, quietly and in an orderly manner.
- Check the restrooms or nearby vacant rooms for occupants.
- Take personal belongings only if they are at desks. They may provide extra protection (large books, notebooks or coats may be held over the head and shoulders).
- The teacher should take the roll book and take attendance once in the shelter and report any missing students.
- Take position for greatest safety by crouching on knees, head down with hands locked at the back of the neck.

Average Number Of Tornadoes And Tornadoe Deaths By State 1953-1980

Upper Figure is Average Annual Tornadoes
Lower Figure is Average Annual Tornado Deaths



If there is not sufficient time to take shelter:

- Go to the **inside wall** of the room away from the windows.
- Squat on the floor next to a wall or get under desks or other furniture by squatting or lying prone on the floor, face down.
- Hold a book over your head for protection.

Testing and Evaluation of the Tornado Response Procedure

- Conduct drills
  - frequently;
  - at various times during the year; and
  - under various situations such as during regular class periods, assembly periods, class changes etc.
- Drill evaluations should be made by
  - faculty, students, staff and administration,
  - local emergency response agencies,
  - use of a checklist or questionnaire. Additional comments and recommendations should be elicited from all evaluators.

After a tornado:

- Beware of contaminated food, water, ruptured gas lines and wet electrical equipment.
- Resume classes only after a determination of building safety has been made.
- Resume classes in predesignated buildings if school facilities are damaged.

58

59

Flooding

Many areas in Texas are subject to floods. Flooding may be caused by heavy rains or tidal surges from tropical storms and hurricanes off the coast. Even small creeks with intermittent flows are capable of becoming raging torrents of destruction.

Warning

- Except in the case of flash flooding, the onset of most floods is a relatively slow process taking several days. Progressive situation reports are available from the National Weather Service (NWS) and the local Emergency Management office.
- Flash flood warnings are issued by the NWS via radio and television. Many communities have a local flash flood warning system to assist in the dissemination of this information.

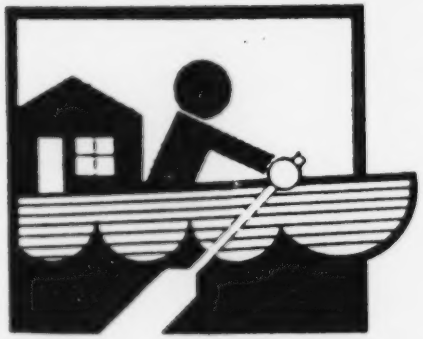
Preparation

- Know the local history of flooding.
- Know what a forecast river height means in terms of flooding your school, community, bus routes and student's residential areas. Helpful information includes:
  - Knowledge of local elevations.
  - Knowledge of how elevations relate to river gauges for which the forecast was prepared.
  - Topographic maps of the area. Note on maps the hazardous areas, bus routes, areas of chronic flooding, flood prone creeks, rivers, potentially hazardous dams, bridges and crossings, etc.. Also note any safe areas of high ground away from water courses.
- Plan alternate bus routes to avoid flood prone areas.

Instruct bus drivers of their responsibilities during flash flooding conditions. Responsibilities include:

- Not crossing a flooded bridge.
- Not traveling through a flooded area.
- Caring for children that cannot be delivered to their homes.
- Notifying the school office of hazardous conditions observed.

- Make provisions for students living in an affected area to be:
  - Sent home early.
  - Kept at school until emergency subsides.
  - Sent to homes of relatives.
  - Sent to other homes near the school.
  - Handled in accordance with the parents' wishes.



- Make special provisions for students who use modes of transportation other than those furnished by the school system.
- Locate alternate buildings in which to conduct classes if school facilities are affected or damaged.
- Establish policy regarding class cancellation, late opening, or early dismissal if the school is designated an emergency shelter for other than the normal school population.

Response

- When weather conditions indicate an area may be affected, radio or T.V. broadcasts should be monitored.
- Be prepared to:
  - Evacuate students immediately in accordance with pre-established school policy.
  - Notify parents via radio, T.V. or phone.
  - Notify bus drivers according to standard emergency transportation policy for early/late dismissal.
  - Keep students at school or transport to other evacuation points.
  - Effect school cancellation or late opening policy.
  - Shut off water service so contaminated water will not back up into the school supply.
  - Protect food supplies should power be lost. Pack refrigerators and freezers with dry ice.
- If a school is designated as an emergency shelter and time permits, check all supplies and provisions prior to emergency operations.
- After a flood:
  - Beware of contaminated food, water, ruptured gas lines and wet electrical equipment.
  - Resume classes only after a determination of building safety has been made.
  - Resume classes in predesignated buildings if school facilities are damaged.

Hurricane

A hurricane can cause severe damage through the combined effects of tidal surge action, gale force winds and torrential rains. Flooding from a tropical storm can be experienced hundreds of miles inland even after the storm has decreased in intensity or has moved beyond the coast. To add to the danger of hurricanes are possible accompanying tornadoes, thunderstorms, high winds and tidal surges. School districts along the Gulf coast should take special care to develop evacuation procedures for responding to hurricane warnings.

Warning

The National Weather Service is in charge of issuing weather advisories on approaching hurricanes. Two categories of advisories are issued depending upon the degree of certainty that a storm will strike an area. They are:

- **Hurricane Watch:** A hurricane may threaten an area within 24 hours. It is not a warning, but a first alert for emergency forces and the general public in the threatened area. When under a hurricane watch, continue normal activities; but **stay tuned to radio or television stations for all weather service advisories.**
- **Hurricane Warning:** A hurricane is expected to strike an area within 24 hours. the hurricane warning contains an assessment of flood danger in coastal and inland areas, small craft warnings, gale warnings for the storm's periphery, estimated storm effects and recommended emergency procedures.

Preparation

- Know the history of local hurricanes, the elevation of the school above sea level and streams or rivers that may flash flood.
- Know safe evacuation routes to official shelters.
- Have school buildings evaluated by a **registered architect or engineer** to determine the structural capacity to withstand hurricane force winds.
- Identify and designate the best internal protective areas within buildings.
- Keep materials on hand to tape or board up windows and to provide other protection to building and outdoor equipment as necessary.
- Schools designated as emergency shelters or host areas for evacuees from other areas should develop procedures for maintaining emergency equipment, securing buildings and providing emergency services.
- Coordinate requirements with local Emergency Management officials.
- Establish evacuation notification procedures with local officials.
- Consider temporary relocation of vehicles, other mobile quipment, and supplies to areas of lesser risk.

Response

Upon issuance of a hurricane warning, schools in the threatened area should be closed and students sent home.

If a school has been designated a shelter or host area for evacuees or storm victims, the following measures should be taken:

- Store all portable equipment and loose items inside the building or tie down securely (outdoor furniture, garbage cans, janitorial equipment, signs, other movable objects, etc.).
- Board up all glass areas. If this is not possible, use wide strips of masking tape in an "X" pattern to minimize flying glass.
- Lower and securely fasten all window blinds and drapes.
- Verify that all battery powered equipment, emergency cooking facilities, and flashlights are in operating order.
- Store all drinking water in clean, closed containers.
- Assemble tools which may be necessary to make emergency repairs.

If time does not permit the dismissal of students:

- they should be kept in areas of the school that have been determined to be structurally resistant to high winds and are minimally exposed to broken glass, flying debris and possible flooding (stay in the downwind or leeward part of the building if possible);
- release students only when authorized by their parents;
- evacuate students from the school to a predesignated shelter.

After the passage of a storm:

- Avoid the use of any open flames until it has been determined that there are no leaking gas lines or other flammable materials present.
- Avoid wet or damaged electrical wires.
- Check emergency food and water supplies for possible contamination. Boil tap water.
- Beware of outdoor hazards such as loose debris, damaged power lines, snakes, washed out roads and bridges.
- Return students to homes when traveling conditions are deemed safe and transportation is available.
  - Do not resume classes until the building is declared safe.

Winter Storms

The most significant hazards associated with winter storms in Texas are intense cold and the breakdown of transportation due to poor visibility and unsafe road conditions. In many parts of the state, infrequent severe climatic conditions has resulted in inadequate emergency equipment and inappropriate design of roads and buildings. In many cases, a light snow may disrupt transportation and utility services.

Warning

Severe weather warnings are issued by the National Weather Service (NWS). When the threat of severe weather exists, monitor the radio/T.V. for bulletins.

Preparation

- Establish school cancellation and early dismissal policies.
- Establish an agreement with towing services to respond to stuck or stalled buses.

- Suggested emergency equipment for buses include:
  - two way radio
  - booster cables
  - tow chain or cable
  - fire extinguisher
  - first aid kit
  - shovel
  - sack of sand
  - flashlight or signal light with extra batteries
  - plastic scraper
  - list of emergency phone numbers

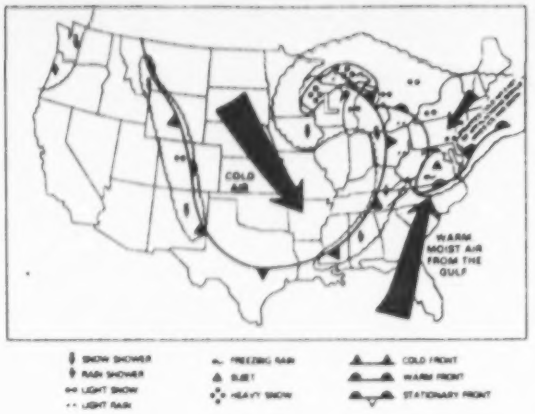
- Establish policies to cover bus trips and other events.
- Establish an emergency community shelter policy if the school should function as a temporary emergency shelter.
- Establish a policy for the care of students or staff members stranded at school facilities.
- Establish a policy for providing emergency transportation for students and staff who normally walk to school.
- Establish a procedure for securing buildings against utility damage (frozen water pipes, etc.).

Response

- Implement early dismissal procedures.
- Inform students, and notify parents through the public media.

- Ensure that all pedestrian students are properly dressed for cold weather or provided transportation.
- Initiate protective measures to secure the building against storm damage, bursting pipes, etc.

- **The bus operator should notify the supervisor if:**
  - The road is blocked.
  - The bus is stuck.
  - The bus has been involved in an accident.
  - The route has changed.
- **If the bus is stalled or trapped in the snow:**
  - Stay with the bus.
  - Turn on clearance lights.
  - Run the motor only if the exhaust is properly dissipated and does not create a hazard for the occupants.
  - Provide ventilation by lowering the windows slightly on the side away from the direction of the storm winds.
  - Do not panic; work slowly; and beware of overexertion.



Hazardous Materials

The probability that a school may be affected by an accident involving a hazardous material carrier becomes greater with the continuing growth of industry and the demand for fuel and chemicals.

Warning

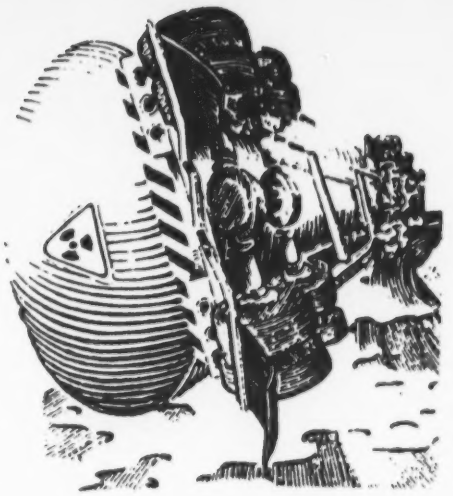
Warning of a hazardous material incident is usually received from the fire department, police department or from Emergency Management officials. But in some cases the incident may occur close to a school facility, and it will be the responsibility of school personnel to notify the appropriate authorities.

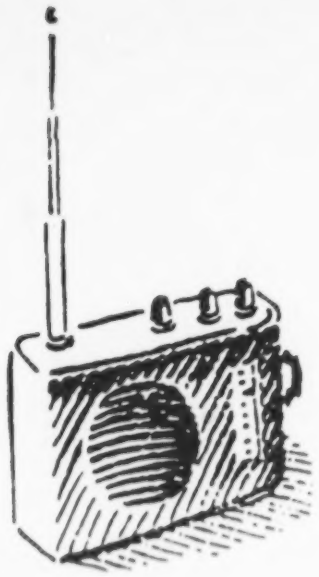
Preparation

- Determine the transportation routes (highway, railway, pipeline), industrial use and storage areas of potentially dangerous materials within a five mile radius of the facility.
- Identify and get to know the agencies in the community that deal with hazardous material spills. Keep telephone numbers on the school's emergency phone list.

Response

- Determine the need for evacuating facilities.
- If it becomes necessary to evacuate the area, move perpendicular to the direction of the wind; never move parallel to the direction of the wind (which may be carrying toxic fumes). Upon reaching a point of safety, take roll call and account for all students.
- Be prepared to render first aid.
- The principal should direct any further response actions.
- Students and staff must not return to the school until the Fire Department or other emergency service officials and the principal have declared the area to be safe.
- Initiate early/late dismissal procedures as necessary.





Earthquake

The probability of a major earthquake in Texas is relatively low. School districts should be informed of necessary precautions and be prepared for self protection in the event of an earthquake.

Warning

Earthquakes occur without warning. Seismologists can identify areas where earthquakes are most likely to happen but cannot yet predict the exact time and place.

Preparation

- Become aware of the local geology and locate faults which may be potentially hazardous.
- Give students and staff earthquake safety information (available from the Texas Education Agency or the Department of Public Safety, see Resources chapter).

Response

During the shaking, **remain calm** and stay where you are. Keep in mind that most injuries or deaths are the direct cause of falling debris.

- **If indoors,** remain indoors.
  - Take cover under desks, tables, heavy furniture, in interior doorways, or narrow corridors.
  - Stay away from windows and watch for falling objects.
- **If outdoors,** stay in the open.
  - Move away from buildings.
  - Avoid utility poles and overhead wires.
- **If in a bus**
  - Stop quickly and safely in an open area away from highway overpasses, road cuts, etc.
  - Stay in the bus.

After the shaking:

- Evacuate and move to open areas away from the buildings.
- Do not enter buildings until authorities have checked them for possible structural damage, leaking gas lines and other utility disruptions.
- Take roll, account for all students, and report to the principal.
- Do not use any open flames while inside the buildings.
- Monitor radio/T.V. broadcasts for the latest bulletins.
- Use discretion in implementing dismissal policies (depending on the state of communications, availability of transportation, damage to school buildings, residential areas and transportation routes).

Utility Failure

Utility failures are not uncommon. Gas line leaks may be ignited by sparks, flooding from a broken water main may cause extensive damage, and electric power failure may result in the loss of refrigerated food supplies or the creation of a severe fire hazard. The telephone lines can go out for a number of reasons.

Preparation

- Identify the possible effects the loss of each utility may have on the school facility.
- Consider the availability of an emergency generator to supply essential needs.
- Inventory the community resources to locate alternate sources of power and other necessary supplies.
- Identify buildings or parks that are suitable and available in which to conduct classes temporarily.
- **Retain a built-drawing** of all utility lines and pipes associated with the facility and grounds.
- Develop procedures for an emergency utility shutdown.
- Maintain a list of phone numbers, of all serving utility companies, and maintenance personnel.
- **Minimize threats of failure through good maintenance practices.**

Response

Gas Line Break:

- Evacuate the building immediately by fire drill procedures.
- Notify superintendent, principal, maintenance staff, local public utility department, gas company, and the local police/fire departments.
- Shut off main valve.
- Open all windows.
- Do not enter the building until utility officials determine if it is safe to do so.

Electric Power Failure:

- Call the power company.
- Notify maintenance staff.
- Evacuate the building by fire drill procedures if there is a danger of fire.
- Relocate the students from rooms without windows or direct outside ventilation.
- Keep refrigerated food storage units closed to retard spoilage if power cannot be promptly restored.
- Turn off the power at the service point and follow repair procedures if an electrical short circuit is suspected.

Water Main Break:

- Call the facility maintenance department.
- Shut off valve at the primary control point.
- Call predesignated assistance groups if flooding occurs.
- Relocate articles which may be damaged by water.

General

Initiate dismissal, school cancellation or delayed opening policies as necessary.

78

79

Bomb Threats and Terrorism

Over 95% of all bomb threats are hoaxes, but there is always a chance that a threat may be authentic. Appropriate action should be taken in each case to provide for the safety of the occupants. The school administration must decide whether or not to evacuate the building and who should conduct the search for a suspected bomb. While the responsibility for action rests primarily with law enforcement authorities, the people who work in the building are most aware of what does or does not belong in or near it.

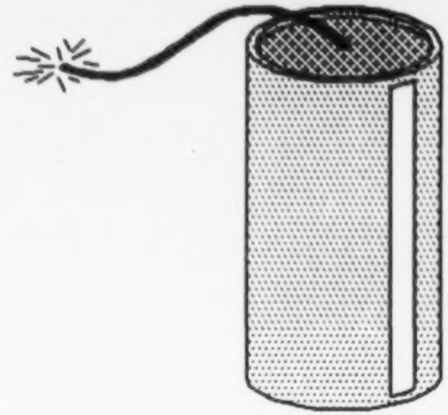
Preparation

- During periods of tension or in the aftermath of bomb threats:
  - All rooms should be kept locked when not in use.
  - The teacher should check the room and report anything unusual to the principal upon arrival in the morning and return to the room during the day.
  - Teachers should stay in the room until all students leave, then secure the windows and doors upon departure.
  - Custodians should lock the door after cleaning each room.
- Coordinate plans with local fire and Emergency Management officials.
- Keep a master floor plan of the building available.
- 80 Develop an efficient and thorough method of searching each building.
- Brief the staff on the manner in which to handle a bomb threat.
- Post bomb threat call procedures adjacent to the switchboard and/or all office phones.
- Understand the psychological profile of bomb threat callers.
- Be familiar with the appearance and effects of homemade bombs.

Response

Upon receipt of a telephoned bomb threat:

- Obtain as much information from and about the caller as possible:
  - Listen, do not interrupt.
  - Transcribe the entire message.
  - Keep the caller talking.
  - Put a tracer on the call.
- Notify the police.
- Evacuate the building immediately using fire drill warning and procedure.
- Enact early dismissal or delayed opening policies as appropriate.
- Inform or withhold information from the news media in accordance with standard school policy or at the direction of law enforcement authorities. 81



Nuclear Power Plants

Currently, there are two nuclear power plants in the state of Texas. They are the Comanche Peak Nuclear Power Plant, located near Glen Rose, in Somervell County, and the South Texas Nuclear Power Plant, located near Wadsworth, in Matagorda County.

Although the construction and operation of nuclear facilities are closely monitored and regulated by the Nuclear Regulatory Commission, accidents at these plants are possible. An accident could result in dangerous levels of radiation that could affect the health and safety of the public living near the nuclear power plant.

Understanding Radiation

Atoms are the building blocks of all matter. If an atom is unstable, it will emit radiation as it lowers its energy state to a more stable configuration. Radioactive materials exist in nature, and are also released from technological sources such as x-ray machines, television sets, and microwave ovens. Nuclear power plants use the heat generated from nuclear fission to convert water to steam, which powers generators to produce electricity.

In general, radiation has a cumulative effect. The longer a person is exposed to radiation, the greater the risk. A high exposure to radiation can cause serious illness or death.

If an accident at a nuclear power plant were to release radiation in your area, local authorities would activate warning sirens. They would also provide specific disaster response instructions through the **Emergency Broadcast System (EBS)** on local television and radio stations.

Responding to Radiation Exposure

In general, there are three ways to minimize radiation exposure: **distance, shielding and time.**

- **Distance.** The more distance between you and the source of the radiation, the less exposure you will receive. In a serious nuclear power plant accident, local authorities will call for an evacuation in order to increase the distance between you and the radiation.
- **Shielding.** Shielding capacity is a function of mass. Thick, dense material (such as earth, brick masonry, concrete, etc.) will provide more protection than thin, lightweight materials (wood stud walls, metal roofs and wall panels, rooms with large amounts of glazing, portable classrooms). **Remain indoors if an accident occurs at a nearby nuclear power plant.**
- **Time.** Radioactivity will decay with the passage of time. In the event of a nuclear power plant accident, local authorities will monitor any release of radiation and determine when the threat has passed.

Preparation for a Nuclear Power Plant Emergency

State and local government, federal agencies and the utility companies have developed emergency response plans for use in the event of a nuclear power plant

accident. These plans define two Emergency Planning Zones. One covers an area within a 10-mile radius of the facility where it is possible that people could be harmed by direct radiation exposure. The second zone covers a broader area, usually up to a 50-mile radius from the plant, where accidentally released radioactive materials could contaminate water supplies, food crops and livestock.

Know the terminology used to describe a nuclear emergency:

- **Notification of unusual event** means a problem has occurred at the plant. No radiation leak is expected. Federal, state and county officials will be notified immediately. No action on the part of the school district is necessary.
- **Alert** indicates that small amounts of radiation could leak inside the plant. This should not affect the local population. Federal, state and county officials will stand by. At this point, it is not necessary for the school district to initiate a response.
- A **site area emergency** is a more serious problem. Small amounts of radiation could leak from the plant. If necessary, state and county officials will act to assure public safety. Area sirens may be sounded. Listen to your radio or television for safety information.
- A **general emergency** is the most serious problem. Radiation could leak outside the plant and off the plant site. Warning sirens will sound. Tune to your local radio or television station for reports. State and county officials will act to assure public safety. Be prepared to follow their instructions promptly.

81

Learn the community's warning system. Nuclear power plants are required to install sirens and other warning systems to cover a ten-mile radius around the plant.

- Be familiar with the siren testing schedule and what they sound like.
- The next time a test is conducted, determine if you can hear it from your duty station within the school.

Obtain public emergency information materials from the power company that operates your local nuclear power plant or from your local Emergency Management office. If your school is located within 10 miles of the power plant, you should receive these materials every year from the power company or your state or local government. Get acquainted with the spokesperson(s) at the power plant.

Be familiar with the emergency plan for your school.

- **Train** all school personnel so that they have a clear understanding of their duties and responsibilities.
- Develop procedures for **communicating** with faculty and staff during an emergency.
- Be able to find your **EBS** stations on your radio dial for further updates.

- **Be prepared to evacuate.** Prepare an evacuation plan in advance. All evacuation procedures should be coordinated with your local Emergency Management office.
- **Pre-determine evacuation routes and shelter locations.**
- **Conduct evacuation drills.**

Nuclear Conflict

In the event of nuclear conflict, the chances of survival are greatly increased when the general population is well informed and have access to properly designed and equipped fallout shelters.

Warning

Provisions should be made for reception of alerts or warnings from outside sources (warning systems will vary from community to community).

The Federal Emergency Management Agency has established two signals:

- The **ATTACK WARNING SIGNAL** consists of a three to five minute **wavering** sound on sirens or a series of short blasts on whistles, horns or other devices. **This signal has only one meaning; enemy attack is imminent and emergency procedures should be implemented immediately.**
- The other signal is the **ATTENTION** or **ALERT SIGNAL** which is a warning of a peacetime emergency (either nuclear or natural), and consists of a three to five minute **steady** sound.

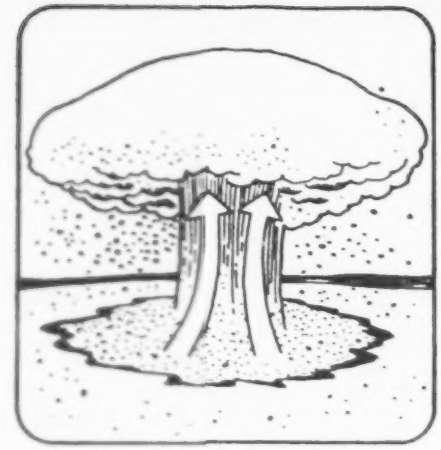
Preparation

- Have qualified Emergency Management personnel provide an assessment of the shelter facilities. The Division of Emergency Management, Department of Public Safety, maintains a database of public and commercial buildings which have been surveyed and found suitable for use as blast or fallout shelters.
- Offer a course in personal and family survival to all students old enough to absorb such information, to all faculty members and other employees, parents and interested community members.
- Encourage faculty members to take courses in Radiological Monitoring, Shelter Management and First Aid.

Shelter

If there is a fallout shelter in the school facility:

- Use it only as designated and approved by Emergency Management officials;
- Shelter use should be organized with a designated shelter manager;
- Provide for shelter supplies;
- Occupants should be assigned space and duties within the shelter;
- Teachers should take roll, account for all students, and report to the principal;
- Activities should be planned to help reduce tension and pass the time during shelter stay.



THE EFFECTS OF NUCLEAR WEAPONS

Understanding the major effects of a nuclear detonation can help people better prepare themselves if an attack should occur.

When a nuclear weapon is detonated, the main effects produced are intense light (flash), heat, blast, and radiation. The strength of these effects depends on the size and type of the weapon; the weather conditions (sunny or rainy, windy or still); the terrain (flat ground or hilly); and the height of the explosion (high in the air or near the ground). In addition, explosions that are on or close to the ground create large quantities of dangerous radioactive fallout particles. Most of these fall to earth during the first 24 hours.

Figure 1 illustrates the damage that a one-megaton weapon* would cause if exploded on the around in a populated area.

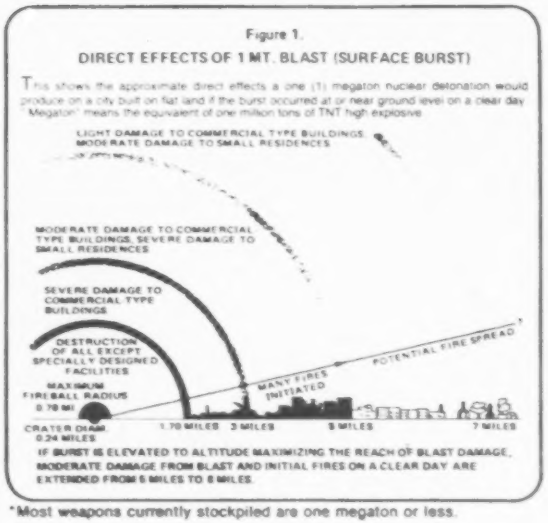


Figure 1.
DIRECT EFFECTS OF 1 MT. BLAST (SURFACE BURST)
This shows the approximate direct effects a one (1) megaton nuclear detonation would produce on a city built on flat land if the burst occurred at or near ground level on a clear day. "Megaton" means the equivalent of one million tons of TNT high explosive.
LIGHT DAMAGE TO COMMERCIAL TYPE BUILDINGS. MODERATE DAMAGE TO SMALL RESIDENCES
MODERATE DAMAGE TO COMMERCIAL TYPE BUILDINGS. SEVERE DAMAGE TO SMALL RESIDENCES
SEVERE DAMAGE TO COMMERCIAL TYPE BUILDINGS
DESTRUCTION OF ALL EXCEPT SPECIALLY DESIGNED FACILITIES
MAXIMUM FIREBALL RADIUS 0.78 MI.
MANY FIRES INITIATED
POTENTIAL FIRE SPREAD
CRATER DIAM. 0.24 MILES
1.70 MILES
3 MILES
5 MILES
7 MILES
IF BURST IS ELEVATED TO ALTITUDE MAXIMIZING THE REACH OF BLAST DAMAGE, MODERATE DAMAGE FROM BLAST AND INITIAL FIRES ON A CLEAR DAY ARE EXTENDED FROM 5 MILES TO 8 MILES.

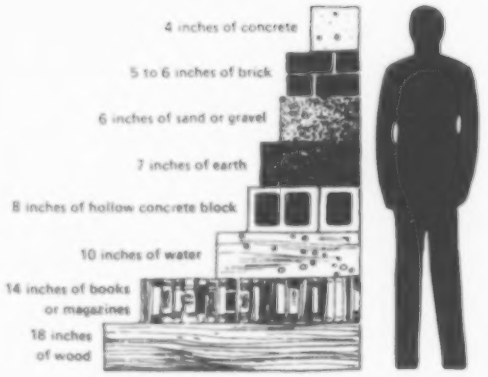
*Most weapons currently stockpiled are one megaton or less.

If there are no fallout shelters in the school facility:

- Students and personnel may take shelter in predesignated fallout shelters or buildings near the facility;
- Use a tornado shelter if the facility is in an area where damage from blast and heat may occur. Because tornado shelters do not necessarily provide adequate fallout protection, students and personnel should be moved to fallout shelters when the immediate danger of blast and heat is over;
- If there is not a tornado shelter, take tornado emergency protective procedures and move students and personnel to the safest parts of the buildings and away from free span roofs, windows, etc.. Insulate the shelter areas with furniture, books, papers, cardboard boxes of supplies, extra clothing or anything else (the more massive, the better) to reduce exposure to radiation.

If the facility is out of the blast area:

- Send children home in the usual manner; or
- Send students to local fallout shelters.


4 inches of concrete
5 to 6 inches of brick
6 inches of sand or gravel
7 inches of earth
8 inches of hollow concrete block
10 inches of water
14 inches of books or magazines
18 inches of wood

IV.
Emergency Preparedness Education

The words "emergency" and "disaster" may connote terrifying graphic images of death and destruction. Group discussion of the facts of life and death provide an opportunity to examine fears, and to realize the many common feelings that people share. This knowledge is often a source of comfort and strength in an emergency. Teachers find that the study of human reaction to extreme events can generate profound and satisfying discussion.

We're wounded by fear,
. . . injured in doubt.

—Bono, Irish poet.

In addition to providing for the physical safety of students, it is also imperative that a school provide students with emergency preparedness information. The school's capability to successfully respond to an emergency will be greatly improved when students are fully aware of the rationale behind the instructions they are given. Also, students will develop survival skills that will enable them to care for themselves in the event that there are no responsible adults to take charge.

Primary Grades

Even a very young child is capable of absorbing basic emergency preparedness instruction. A child needs to know that emergencies can happen to anyone and that there are measures that should be taken to ensure one's survival. Without frightening a child, a teacher may introduce concepts of emergency and self help by relating instructions to the child's everyday experiences. Be careful that you do not overwhelm children with too much disaster information, which might cause nightmares. There is a fine line between preparedness and overexposure.

Primary school children should be made aware of hazards that cause disasters. They should be trained in safety and survival procedures and must develop their own sense of self-confidence in problem solving and decision making. Children should also be shown how individual cooperation adds to the safety of the group.

Tips for Teachers:

- Take advantage of the many free materials developed for primary grade emergency preparedness curriculums (see Resources section).
- Invite speakers from emergency service groups and visit emergency preparedness facilities on field trips.
- Add a few emergency related words to the weekly spelling lesson.
- Have students draw maps of their community, designating hazardous areas as they perceive them.
- Have students design posters about emergency preparedness techniques.
- View a disaster related film and have the children discuss it (if it is appropriate for their age group).
- Use carefully chosen newspaper and magazine articles to illustrate disasters and their effects.
- Drill students into memorizing personal identification information (full name, address, telephone number, names of parents, place of work, etc.).

Intermediate and Secondary Grades

As students mature, they need to acquire more detailed information about the hazards of living. Secondary level students are ready to view events in a continuum from cause to effect. They should be ready to approach the subject of disasters in a more realistic, practical manner and be well aware of the global relationships and repercussions of a major disaster. Instruction at this level should include increasingly scientific and technical information about hazards, including an introduction to the implications of nuclear conflict.

> **Caution:** The discussion of nuclear war is a very sensitive subject, and can have a traumatic effect on some students. It should not be discussed in detail or as a real and near possibility. If discussed it should be done very carefully.

Secondary students should also have a positive, well developed sense of their role in society, and confidence that they have direction and control of their lives. Such attitudes can be fostered by ensuring that each student has information that will be useful for purposes of coping and survival.

Tips for Teachers:

Intermediate Grades

■ **Science**

- Relate disasters to physical change, conservation ecology and environmental science.
- Study local vulnerability to hurricanes, tornadoes, flooding and other natural hazard phenomena.
- Study the relationship of weather and climate to geographical location.
- Discuss the hazards created by science and technology.
- Discuss the potent forces of hurricanes and tornadoes.
- Keep a scrapbook of newspaper clippings to illustrate the scope and effect of natural and technological disasters, the frequency of disaster and the benefits of preparedness.

■ **Social Studies**

- Study the interdependence and cooperation of people, organizations and nations when a disaster strikes.
- Study the effects that wars, earthquakes and fires have had in changing the course of history.
- Compare and discuss the experience of living in poverty (a disaster in itself).
- Invite the director of the local Emergency Management Office to explain his/her role in emergency planning and response.
- Compare and discuss the attitudes of other cultures as they relate to disasters (divine will or punishment, etc.). Be sure that judgemental attitudes are not fostered.
- Compare and discuss the hazards common to Texas with other places of equal latitude.

■ **Health and Physical Education**

- Are ideal courses for teaching safety and survival techniques, basic first aid, etc.. Have students simulate a disaster situation, and assume the roles of victim and rescue workers. Practice simple carry/stretcher improvisation, etc.
- Utilize resources available through the Emergency Public Information Family Preparedness Program, available from local Emergency Management offices.

■ **Language Arts**

- Give the class a list of reading material about disasters. Assign book reports and have students present them to the class. Hold a discussion about disasters, and the various reactions of the children resulting from their readings.
- Add emergency/disaster related words and phrases to vocabulary and spelling lists.
- Have students write a short story, poem or play relating a personal account of a fearful situation, emergency or disaster.

■ **Music and Art**

- Have students design safety posters and display them during a special School Disaster Awareness Week.
- Paint a mural of an emergency operation.
- Discuss the effect of music in reducing fear and anxiety.

- Have students design pocket identification cards and encourage them to carry the card at all times.

Junior and Senior High School

■ **Language Arts**

- Require reading assignments that relate to disasters.
- Have students critique various journalistic approaches to disaster reporting, e.g., sensationalism, etc.
- Have students research local newspaper archives and compare past disaster reporting with the present styles. Conduct a historical survey of community disasters and make a class report to print in the school or local newspaper.

■ **Chemistry/Physics**

- Discuss the physical properties of matter and energy. Lead a discussion of nuclear weapons, their effects on people, the environment, and protection measures against radioactive fallout.
- Discuss the positive and negative aspects of the peacetime applications of fission and fusion reactors.
- Study alternative sources of power (solar, wind, etc.).

■ Earth Sciences

- Examine natural forces that create disasters (faulting, volcanism, continental drift, sinkhole collapse, etc.). Use a map to note hazardous areas and regions on a global scale.
- Create science projects involving hazard detection and mitigation.
- Study coastal development and the hazards man creates by altering natural processes (i.e., the relationship of sand dunes, beach erosion, and flooding).
- Discuss the positive and negative aspects of the development of science and technology.
- Study the "greenhouse effect" and its environmental implications. Stress the importance of thinking "green", and through hard work and cooperation, this type of disaster can be averted.
- Discuss the effects of pollution on the environment and animal life.

■ Social Studies

- Discuss the idea that some so-called disasters are actually a functioning mechanism of the ecosystem with beneficial results that perpetuate the balance of nature.
- Compare cultural attitudes with respect to man's relationship with the forces of nature. For example, should natural forces be conquered and controlled? Or should mankind learn to coexist with the forces of nature?

- Study the evolution and adaptation to environmental influences.
- Compare animal instinct to human reactions. Do animals sense danger? Does man?
- Examine ways in which plants and animals react to and recover from disasters.
- Study the psychology of fear, stress, grief, and the various responses of various cultures.

■ Health and Physical Education

- Offer courses in first aid.
- Organize rescue teams and train with the local volunteer rescue organizations.
- Relate health and fitness to self-preservation.
- Study emergency procedures for maintaining sanitary conditions and preserving food quality during disasters.

Disaster Awareness Week

Organize a "Disaster Awareness Week" event whereby students participate in disaster preparedness activities. If carefully planned, it can be fun, informative, and productive.

Some suggested activities are:

- Integrate disaster preparedness measures with the daily school curriculum.
- Initiate a public relations campaign utilizing the art classes to create posters and disaster awareness bulletin boards.
- Have a general assembly with local Emergency Management officials making presentations.
- Conduct a variety of drills. Include severe weather, fire, and emergency exit from a bus.
- Stage a mock emergency complete with victims and appropriate emergency responses.
- Serve emergency rations for lunch!

V.
Crisis Intervention

106

Coping With Disaster

Disasters can be traumatic for adults, but they are particularly frightenting for children. It is difficult for them to understand and accept that there are events in their lives that can't be controlled or predicted. Worst of all, children can't understand that adults can't "fix" a disaster, and can't prevent it from happening again.

During a disaster, children may have to leave their homes and daily routines. They may become anxious, confused or frightened. Teachers will also need to cope with the disaster and give the students crucial guidance about how to respond.

Taking Care of Yourself

That which does not kill us makes us stronger

Friedrich Wilhelm Nietzsche
German philosopher
1844-1900

During a disaster, teachers will be called upon to perform disaster related duties. In order to perform those duties effectively, the teacher must realize the importance of taking care of one's self while taking care of others. **Do not neglect your own health and well being** during a disaster, for you will not be able to function properly and thus will be ineffective and of little value to those that need you the most.

What are some of the effects of stress during a disaster situation?

- You may experience physical symptoms associated with stress such as headaches, upset stomach, diarrhea, or have poor concentration, and feelings of irritability of restlessness.
- You may become tired of the disaster and prefer not to talk about it, think about it, or even associate with coworkers in your time off. You may become tired of continual interaction with victims and may want to isolate yourself in your time off.
- You may be feeling frustrated or guilty because you miss your family, but are unavailable to them both physically and emotionally due to your psychological involvement in the disaster, fatigue, and so forth.
- Phone calls home can be both frustrating and rewarding. You may feel your families and friends simply cannot understand the disaster experience. If they become irritated, it can compound the problem, and temporary isolation and estrangement may occur.

In order to minimize stress during a disaster situation, the following practices should be observed.

- Try to make your living accommodations personal and comfortable. When packing for the disaster, take a few mementos from home to help you keep in touch psychologically.

107

- Try to get regular exercise consistent with your physical condition and enjoy some activity away from the disaster scene. Do things that enhance relaxation such as listening to music, running, reading a good book, or taking a hot bath.

- Get enough sleep and try to eat regular meals even if you're not hungry. Try to avoid foods high in sugar, fat and sodium, such as donuts and fast foods. Take a good vitamin and mineral supplement to be sure your body is getting the nutrients it needs.

- Avoid excessive use of alcohol and coffee. Caffeine is a stimulant and should also be used in moderation as it affects the nervous system making you nervous and edgy.

- Although you need time alone on long disaster operations, you should also spend time with co-workers, particularly if you are a newcomer to disasters. Experienced and new disaster workers should spend respite time, sometimes with co-workers, away from the disaster scene. Talking about normal things (home, family, friends, hobbies) other than the disaster is a healthy change of pace.

- Humor helps ease the tension. However, use it carefully as victims or co-workers can take things personally, resulting in hurt feelings if they are the brunt of "disaster humor."

- When on the job, it is important to take breaks during the day, especially if you find yourself making mistakes or unable to concentrate.

- Recognize the strength of **survivor power.** Living through a disaster makes us stronger and more able to handle future crises.

- **Talk.** It helps **all** disaster survivors (children and adults) to talk with support people about their experiences. Critical incident stress debriefings provide a structure for this.

- **Recognize your own reactions** to stress. It may help to alert a colleague to your own signs of stress. In this way, they can tell you to take a break when you might be too busy or tired to realize that you need one.

- **Take care of your own family.** Your family may need you at home when you are at school taking care of disaster related responsibilities.

- Act as a **team** and have an established **chain of command.**

- **Share** jobs and responsibilities.

- **Pray or meditate.**

- **Breathe** deeply.

- **Exercise.**

- **Self talk.** Talk positively to yourself about your ability to handle the disaster.

- **Take time for limited "obsessing."** Take a moment to acknowledge the extent of the disaster situation. Listen to your fears; don't deny or repress them. After a few moments and deep breaths, set about the work at hand.

- **Set realistic self-expectations.** Realize that you will not save everyone in the world.
- **Pace yourself.**
- Continue to **fine-tune** your disaster procedures and plan ahead.

Children and Their Responses to a Disaster

Children typically depend on their daily routines to provide a sense of security and control over their own lives. When emergencies or disasters interrupt the daily routine, children will become anxious.

Students seek assistance and comfort from teachers and other adults. The adult's responses to disaster conditions will set the example for the children's corresponding responses. If the adult reacts with alarm or panic, the child may become more anxious, since the adult's expression of fear is validation that the danger is real.

Children's fears also may stem from their imagination, and adults should consider these feelings seriously. A child who **feels** afraid, **is** afraid. In times of stress, the words and actions of the teacher can provide much needed assurance.

Feelings of fear are healthy and natural for adults and children. But as an adult, the teacher must maintain control of the situation. After the danger has passed, the teacher should concentrate on the child's emotional needs by asking the child to explain what is troubling him or her. Attending to the children as soon as it is safe to do so is the ideal intervention situation. If intervention is done properly, it will have a lasting positive impact.

It is very important to allow children to express their experiences of a disaster. Classroom discussion and art therapy can provide valuable insight into the reactions of children.

Crisis interventions may be done by mental health workers in the school, or teachers can be trained in methods of assisting children through discussion and drawing.

Immediately after a disaster, students may experience many of the following:

- the fear or worry that the event will happen again;
- the fear that someone will be killed or injured;
- the fear that they will be separated from their family, and suffer the disruption of their home and routine;
- they will be left alone;
- feelings of being trapped or isolated;
- witnessing injuries, pain, and death;
- being out of control of life's basic needs such as food, shelter, clothing, people, and comfort;
- flashbacks to other catastrophes;
- having a sense of mortality;
- feeling "survivor guilt;" and
- feeling forced to become "parents" to adults who are scared or worried.

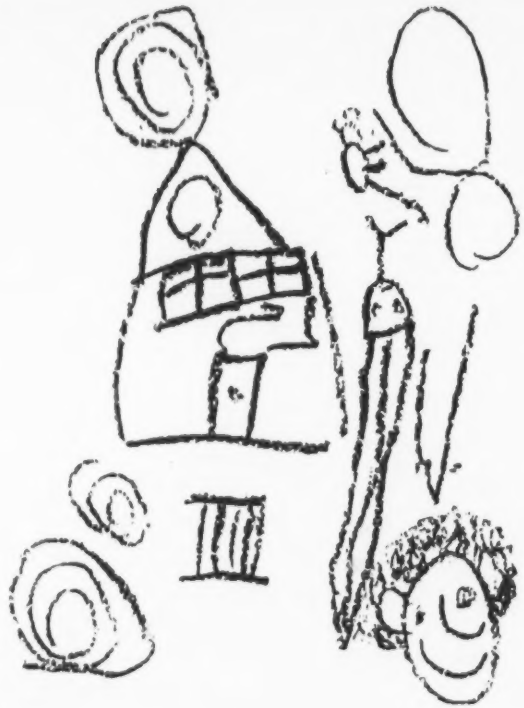
Other common reactions of children to disaster include regression, fear and anxiety, sleeping disorders and confusion. Many children may not immediately exhibit the symptoms of their reaction to disaster. Reactions may show up weeks or months later. Normal responses to a disaster become **abnormal** if they persist well after the event.

The one year anniversary of a disaster may be a particularly stressful date for many survivors, triggering vivid memories and relapses into disaster-induced psychological symptoms. It is also a time when most people recognize the survival strengths they possess and some of the positive changes that have come about since the disaster.

The impact of a disaster may cause children to show a variety of symptoms of distress or other problems. Understanding a child's cultural/ethnic background will play a major role in the understanding of how the child will integrate the disaster into his/her belief system. Thus, the teacher should first know a child's baseline behavior and cultural/ethnic responses before unusual or problem behavior can be identified in a child.

Some characteristics of a child with a disaster related stress problem are:

- any unusual complaints of illness;
- isolation from the rest of the group;
- the child seems pressured, anxious that he or she somehow dominates or is controlling, has to distract others, or is otherwise "needy;"
- a change in behavior or appearance;
- a resistance to communicate, or signs of unusual shyness;
- no eye contact;
- difficulty concentrating;
- hyperactive, silly, or giddy behavior;
- emotional displays such as crying, regressed behavior (less than age-appropriate);
- a lack of emotional expression;
- poor performance;
- an intolerance to change, or difficulty proceeding to the next task;
- lethargy or apathy;
- easily startled, jumpy.



After the Disaster

Immediately after a disaster, the teacher should attempt to reduce the student's fear and anxiety by assisting them in expressing their experiences and feelings. This is referred to as **defusing.**

Defusing is a supportive, personalized, safe **interactive** process between individuals in small groups that provides clarity and complete expression of the disaster experience. It can be emotional, and can help student's and adults to develop coping skills and heal the facilitator of a small group, or the leader of a large group (which subsequently breaks up into small groups) can give a full account of the disaster in language appropriate to the audience.

- First and foremost, the teacher should cope with his/her own feelings of helplessness, fear, or anger. Until this is done, the teacher will not be able to be of much help to the students.
- Put the disaster in context. Calmly and firmly explain the situation, and communicate a positive "I'm not helpless" attitude.
- Initiate the healing process. Help the children to feel relieved and soothed. Encourage the children to talk about the disaster as much as they want. Encourage children to describe what they are feeling. Listen to what they say, and if possible, include the classroom in the discussion.
- Identify children who may need the intervention of mental health professionals or other aides beyond the classroom.

Debriefing is a more formal, structured, planned process keyed to a group (not individuals). The focus is to identify and talk about problems, issues which are related to an event. Anyone may speak, and cross-talk is encouraged. An attempt is made to bring closure to the event and understand the process that the person is experiencing. A separate debriefing may be necessary for staff and students (depending on the age of the students).

The debriefing process is most effective when the disastrous event is focused upon in the following sequence:

- General events (general discussion of the history and characteristics of hurricanes, tornadoes, random violence, nuclear power plants, etc.). This should be a detailed review of exactly what has happened. It can be presented to a large group. However, small group discussions following a large group debriefing is absolutely necessary.
- Event-specific experiences (talk or draw pictures about the specific event that the students may have just experienced).
- Personal experiences. Talk or draw pictures about each student's personal experience. Drawing is a great way to generate discussion among younger students. Older students may be more inhibited about the quality of their art work. Do not require students to exhibit their art work unless they want to.

It should be pointed out that the debriefing process needs to conclude with quiet, reflective time.

Two suggested techniques to use in a classroom to help defuse children after a disaster are:

The Talking Method

and

The Drawing Method

The following are some leading questions and suggested themes that can be used to help children to express themselves in either the **Talking Method** or the **Drawing Method:**

- where were you when the disaster happened?
- what were you doing?
- where were your friends and family?
- what was your first thought when it happened?
- what were you **thinking** and **feeling** during the event?
- what did you see?
- what changed (daily routine, living conditions)?
- what did you hear? smell?
- how did you respond to the disastrous event?
- what did other people around you do during and after the event?
- what was the silliest thing that you did?

- were you or anyone else you know injured?
- what dreams did you have afterwards?
- what reminds you of it?
- when do you think about it?
- what do you do differently since the disaster?
- how do you feel now?
- what makes you feel better?
- was anyone you know killed in the disaster?
- what would you do differently if it happened again?
- how did you help others?
- how would you help the next time?

Remember, the goal of the process is to make children feel better. Children should be challenged with open ended questions that facilitate verbal expression and cannot be answered with a simple yes or no. Most of these questions should be helpful at any time after a disaster, from the day after to several years later.

The following suggested activities may be useful in assisting teachers with their efforts in using the Talking and Drawing Methods to help defuse children. The previous questions can be used as the basis for these activities.

The Talking Method

- Allow each person to tell their own story.
- Use puppets to act out stories.
- Have an open discussion using the previous questions; ask for volunteers to begin the discussion and proceed from the general to the specific.
- Use photos, drawings, videos, etc., to facilitate discussions.
- Have a "show and tell" related to the event.
- Make the event more familiar and less threatening by informing and educating the students.

Remember to keep yourself in a guiding role, not in a controlling role, of the discussions and stories. Also, reassure the children by verbally acknowledging and normalizing their experiences.

Be aware that the Talking Method may not be helpful for **some** people:

- In some ethnic groups, talking openly about one's feelings is not comfortable, appropriate or even polite.
- Some students simply prefer not to discuss their feelings openly due to personality type, privacy concerns, or lack of trust in the process.

The above reasons must be respected as valid.

The Drawing Method

The Drawing Method is an active, playful, visual arts process intended to express feelings. Drawing should be presented to the student as an option for expression, not as a required activity. Use the previous questions to develop themes for drawings. Some suggested activities are:

- Encourage the class to draw or write a book together.
- Create a collage.
- Do a collective drawing or a **mural.**
- Murals tell a collective story and develop teamwork.
- Some students are more comfortable drawing collectively rather than individually.
- The teacher should do very little drawing, and the mural should be given a place of honor in the classroom.
- Allow students to choose the theme of the drawing.
- Make the mural accessible everyday for viewing, adding to the mural, etc.
- Use the mural to facilitate discussions and to demonstrate the accomplishment of getting through a tough situation.

Since some students draw in the abstract, it is important to allow a full range of expression, and to thus respect all modes of expression. Emphasize to the students that their work will not be judged, graded or necessarily shown to others. Allow them to discard their artwork if they are not happy with it, and reassure them that there is no "right way" to draw. Allow the use of various mediums (pastels, crayons, pencils, markers, etc.). Exercise as little control as possible over the artwork.

Upon conclusion of the drawing activities, conduct a discussion of the activities. This discussion can help to bring **closure** to the experience; an important step in the process of expressing feelings, and ultimately healing.

How to Recognize a Child With an Emotional Problem

In both the Talking and Drawing Methods, a teacher may notice a child exhibiting serious emotional problems. Sometimes, a child's artwork may be exceptionally expressive of his or her feelings. Drawings can give clues to deeper issues within the child. The artwork should be interpreted as an instrument of communication, not just fantasy.

A sign of successful defusing is that the students feel better. Yet another sign of successful defusing might be that the defusing process has uncovered other problems. These problems might take on a variety of forms.

How can a teacher recognize a child with an emotional problem? Be aware of the following symptoms (they may be the same as those for fear, anxiety or depression):

- **Complaints of physical symptoms.** These may include headaches, stomach aches, rashes, colds, and an increase in allergic reactions. School nurses often are the first to notice these reactions.
- **Confusion.** Cognitive confusion is one response of children to disaster. Children need to make sense of their world, and it is difficult to explain to them that certain situations are out of our control. They need age-appropriate factual information to help them understand what has happened and how to respond and cope.
- **Regression.** A class of first graders may behave like kindergarteners after a disaster.
- **School problems.** A decline in performance may result due to anxiety, fatigue, or pre-occupation with disaster concerns.
- **Sleep disorders.** These reactions are common. Children may not want to sleep alone or may need a night light. Recurring nightmares are also common.

Stress Interventions with Adolescents

The rapid physical and emotional changes that occur during adolescence affect each person in a different way. There are activities that can be performed with groups of adolescents in crisis. However, it is important to recognize that each individual responds differently to the same stressors.

The developmental tasks of this age group are focused on ego development. They are also building peer relationships, and learning relationship skills not only with peers but with adults outside of the family. Skill building for achievement and performance in the adult world is taking place in the school, in social groups, or in the streets. This period of development has inherent normal stressors such as peer pressure, family pressure, and school pressure. Internal conflicts arise from developing sexual maturity and pressures to achieve. There are many external pressures which also affect youth: mass culture (i.e., the media and advertising), and international politics. Youth also have a strong need for a sense of belonging and acceptance. In short, normal teenagers are at risk in our society. Thus, exposure to a catastrophic event will add to existing stress.

Stress Related Disorders of Adolescence

- adolescent depression and suicide;
- dysfunctional or pathological developmental and psychological models;
- substance abuse;
- eating disorders;
- over-achievement and burn-out.

Symptoms of Post-Traumatic Stress Disorder (PTSD)

- poor impulse control
- disenchantment and rebelliousness
- suicidal behavior
- truancy
- bad judgement
- life-threatening re-enactment behavior
- drug abuse
- sexual indescretion
- interpersonal relationship problems

Schools are a major source of stability and support in a student's life. While teachers are not expected to be qualified as counselors or psychologists, collaboration between school environment as a place where healing and recovery can occur. Children should be reaffirmed with firmness and care. If a child does not respond to the teacher's crisis intervention efforts, then a mental health specialist should be consulted for additional help.

Resources

Many informative books, pamphlets, periodicals, films, and videotapes concerning natural and technological disasters are available through businesses, industry associations, volunteer organizations, federal agencies and library related resources.

The Governor's Division of Emergency Management (DEM)

For the free loan of books, videos, and pamphlets related to emergency management planning and crisis intervention, or to order emergency management publications. contact:

Public Information Officer
Division of Emergency Management
Texas Department of Public Safety
P.O. Box 4087
Austin, Texas 78773
512/465-2138

For additional information regarding the specific requirements of an emergency management plan, contact:

State Plans Officer
Division of Emergency Management
P.O. Box 4087
Austin, Texas 78773
512/465-2452

Texas Education Agency

For additional assistance with the development of an Emergency Management Plan contact:

Division of State Funding
and School Facilities
Texas Education Agency
1701 North Congress Avenue
Austin, Texas 78701-1494
512/463-9238

Crisis Intervention

For information and assistance related to the treatment for stress and other psychological disorders related to disaster trauma contact the following:

Texas Department of Mental Health
and Mental Retardation
P.O. Box 12668
Austin, Texas 78711
512/323-3111

Texas Crime Victim Clearinghouse
Office of the Governor
P.O. Box 12428
Austin, Texas 78711
512/463-1886
1-800/252-3423

National Organization for
Victim Assistance (NOVA)
1757 Park Road, NW
Washington, DC 20010
202/232-6682

Business, Industry Associations and Volunteer Organizations

Since most of the resources available through these agencies vary according to the type of disaster, it is suggested you contact them individually for a catalog or listing of resource materials and their associated costs.

National Fire Prevention Association
470 Atlantic Avenue
Boston, Massachusetts 02210

Liberty Mutual Fire Insurance Company
175 Berkeley Street
Boston, Massachusetts 02100

Insurance Information Institute
267 West 25th Street
New York, New York 10001

American Red Cross
(Contact your local chapter)

Texas Education Agency
1701 N. Congress Avenue
Austin, TX 78701

GE4 501 02

BEST COPY AVAILABLE